

REGARDS ABOUT SHIPBOARD MANAGEMENT

Introduction

Over the past decade there has been a substantial increase in the cost of labour, fuel, maintenance and ship survey. At the same time, the capital cost of providing new tonnage has risen sharply. Tariffs and fixture rates have not kept pace, however, so that the discrepancy between expenditure and revenue has progressively widened. Shipowners are therefore obliged to reduce costs if they are to operate profitably. In this paper stress has been laid on various ways of achieving this objective by improving the design and utilization of vessels, increasing crew productivity, reducing fuel consumption and cutting the cost of maintenance. Another avenue open to them is that of shipboard management.

1. Essentials of shipboard management

Shipboard management constitutes a new approach to ship operation pioneered in recent years by the Danish shipping company DFDS A/S. Its objective is simply to entrust the entire economic running of the vessel to the officers on board, with the shore-based organization providing only back-up services. In effect, the ship becomes a "floating" subsidiary company with the master as managing director. He and his team are authorized to operate within fixed budgetary limits and are responsible for generating an agreed amount of revenue. The approach can be used on mercantile vessels of any kind and will doubtless find increasing application throughout the world, but especially in those countries where crew salaries and/or manning levels are high.

The following requirements must be met if a system of shipboard management is to operate efficiently [2]:

- a) The vessel must have a permanent crew; multi-crew operation is unacceptable. When an officer is absent on leave his place is taken by the officer next in rank, so that a relief officer comes in at the bottom of the scale. This ensures that officers are involved in the management of the same vessel for as long as possible, and gives junior officers occasional experience of added responsibility. As the ship's crew gains an intimate knowledge of the ship and learns how best to manage her at minimum cost, an *esprit de corps* develops that brings greater job satisfaction and in the long term raises productivity.
 - b) A system of shipboard preventive maintenance is required to take the place of sporadic maintenance.
 - c) A fixed standard of maintenance and service should be laid down. Such a shipboard work load is defined in the engineer's schedule and reflected in his budget.
 - d) An effective system of budgetary control should be instituted.
- A major obstacle to the introduction of shipboard management in some companies would be the need to revise manning and managerial agreements, as nowadays many ships are run on the basis of multi-crew operation.

2. Organization of shipboard management

The organization of shipboard management will naturally depend on the needs of individual shipping companies, but the sole objective of such schemes will be to attain the highest level of efficiency practicable.

As stated above, each vessel has a management team responsible for the management of the vessel within its defined authority. The master presides as managing director, with the other officer-directors responsible for their own domains – the chief engineer for ship's machinery, the chief officer for technical matters including deck personnel and the purser for catering.

As shown in Figure 1, the shipboard management team is itself responsible to a shore-based superintendent, who may have charge of six cargo vessels or rather fewer passenger ships. He might be a former marine engineer or marine superintendent; the most suitable person would have wide experience in the technical, maritime, commercial, operational and administrative fields. His role is essentially to provide liaison between the ships and the organization ashore [1].

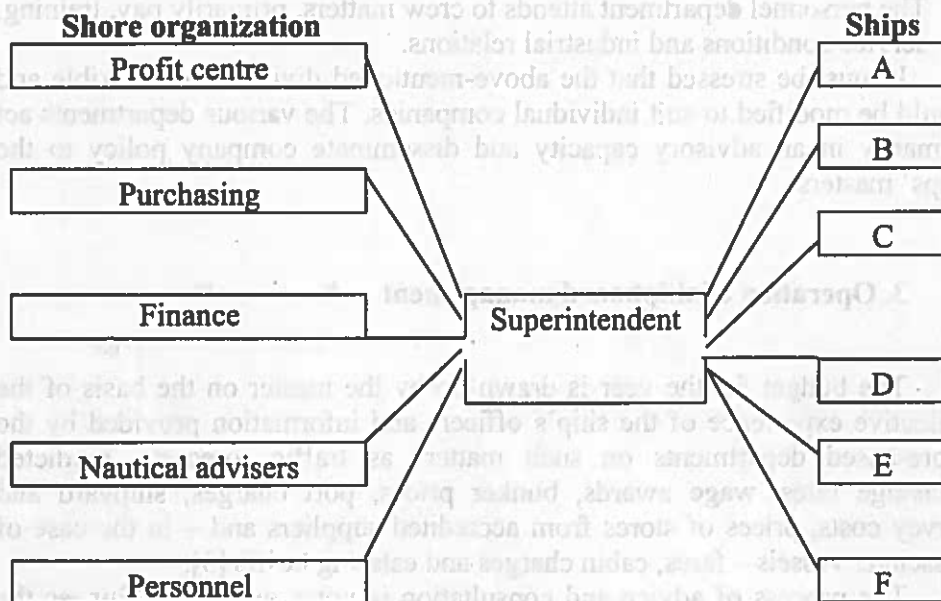


Figure 1. Shipboard management-shore organization

The shore-based organization shown in Figure 1 has a number of profit centres (also called result centres) plus certain service divisions, such as purchasing, finance, nautical advisers and personnel. Some companies may also have other specialist departments to advise the ships' masters on such matters as long- and short-term planning and marketing. The more important shore-based departments call for the following comments [1]:

- a) The profit centres are responsible for ensuring that their own divisions, which may comprise up to 6 vessels, operate according to the budget. Failure to realize the budget objectives causes the profit centre to institute remedial action with the approval of the ship's master.
- b) The role of the purchasing department primarily consists in formulating company policy and routines with regard to ship's stores, victualling and bunkering and preparing a list of approved suppliers among whom the ships' masters can choose.
- c) The financial-accounting department attends to the settlement of accounts, devises accounting procedures, supervises credit and records the overall financial results of the company.
- d) Nautical advisers are involved in matters affecting the technical aspects of ship management, such as surveys, life-saving provisions, navigational equipment, relevant Merchant Shipping Acts, technological manning levels, maintenance systems and the provision of spare parts.

- e) The personnel department attends to crew matters, primarily pay, training, service conditions and industrial relations.

It must be stressed that the above-mentioned divisions are flexible and would be modified to suit individual companies. The various departments act primarily in an advisory capacity and disseminate company policy to the ships' masters.

3. Operation of shipboard management

The budget for the year is drawn up by the master on the basis of the collective experience of the ship's officers and information provided by the shore-based departments on such matters as traffic forecasts, predicted exchange rates, wage awards, bunker prices, port charges, shipyard and survey costs, prices of stores from accredited suppliers and – in the case of passenger vessels – fares, cabin charges and catering tariffs [3].

The process of advice and consultation is not a one-way affair, as the shipboard management team can assist the marketing department with the formulation of the marketing plan. It will also play a public relations role towards agents and potential shippers at its various ports of call.

The predicted financial result for the year is discussed and ultimately approved by the company and the master; at this point the forecast becomes an objective to which the entire ship's complement is committed. It comprises the following main items [3]:

- a) Maintenance and lubrication programmes;
- b) Spare parts programme;
- c) Condition control programmes;
- d) Status procedures;
- e) Budget routines;
- f) Routines for paperwork and reporting;
- g) Purchasing routines.

During the year the master would usually confer with the superintendent once a fortnight, depending on circumstance, and submit written reports on the ship's performance only once a month. Indeed, no return could be made unless the budget forecast had been subject to a major upset that could not be remedied effectively by the shipboard personnel; such as damage requiring the vessel's withdrawal from service for a few days. The budget control and reporting procedures must be adequate so that serious deviations from the budget are notified to the profit centre promptly and measures taken by the superintendent and the master.

Under the system of preventive maintenance, components should be checked at regular intervals according to a set programme of work, which forms the basis of an accurate budget for spare parts and repairs. File cards are kept to show the dates on which major items of machinery have been inspected and to record any problems. Where possible, repairs are carried out by the ship's own personnel. The extent of any work to be carried out in a shipyard and the yard to be employed are decided by the master and chief engineer in consultation with the superintendent. Competitive tenders are invited and a detailed list is prepared showing the repairs that can be done before docking and those that require checking. In this way some companies have been able to reduce the period a vessel is out of service from four weeks to ten days; in some cases ships are now being dry-docked in alternate years, largely as a result of the much improved standard of shipboard maintenance. While the vessel is in dry dock the chief engineer and his officers are responsible for ensuring that all the work is carried out in a satisfactory manner; no shore-based superintendent marine engineer is present as in a traditional management structure. The chief engineer also checks the invoices and passes them to the purchasing department for payment.

4. The consequences and the advantages of shipboard management

The consequences and the advantages of shipboard management will obviously depend ultimately on the shipowner's needs and the trade in which his vessels are engaged. The following benefits should accrue [5]:

- a) The size of the shore-based organization is reduced by the delegation of many tasks to the shipboard management team and the introduction of a common code of ship maintenance, spare parts organization and purchasing procedures. Certain shore-based departments, such as the catering department and the marine engineer's department, may be abolished entirely. As a result, administrative costs have been reduced by about 50 per cent in some companies.
- b) A substantial improvement in crew productivity can be achieved as a result of a large increase in the work load.
- c) The system of planned preventive maintenance and purchasing spare parts procedures organization shortens the time a vessel spends in dry dock on survey – in many cases by more than half – and consequently reduces the cost of obtaining a relief vessel.

- d) The commitment of officers and crew to budgetary targets encourages cost-consciousness and leads to financial savings in all fields of the ship's expenditure.
- e) The increased responsibility entrusted to the ship's personnel and the employment of a permanent crew generate the strengthen of the crew's commitment to the target and make for swift decision-making, as the master can settle many matters within his clearly defined field of competence without referring to the shore-based departments.
- f) The standard of shipboard maintenance and service tends to be much higher as the permanent crew has an intimate knowledge of the ship and takes a pride in achieving the objectives, whether they relate to economical maintenance or maximum revenue production in the ship's bars, restaurants and shops.
- g) Greater job satisfactions creates better economical relations. The master would settle any disputes in the light of the circumstances of the case, its financial implications and the company's policy guidelines.
- h) The improved profitability of the ship greatly facilitates the long-term planning of investment and enables the company to go forward with confidence.
- i) The general economical operation of the vessel helps keep rates competitive and this maximizes market share and revenue.

The development of modern telecommunications systems, the continuous increase in crew costs and the need to keep administrative expenditure within bounds makes its adoption almost inevitable in certain maritime trades.

References

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